

501.33961R00

UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): T. FUJII, et al

Serial No.:

09/885,166

Filed:

June 21, 2001

For:

LIQUID CRYSTAL DISPLAY WITH SUBSTANTIALLY EQUAL RESISTANCES FOR SETS OF TERMINAL ELECTRODES AND

INCLINED WIRING ELECTRODES

Group:

2871

Examiner:

<u>UNDER 37 CFR 1.97 & 1.98</u>

Commissioner for Patents Washington, D.C. 20231

March 18, 202

Sir:

In the matter of the above-identified application, applicant(s) is/are submitting herewith a copy of the documents listed in the attached form equivalent to Form PTO-1449 for the Examiner's consideration, noting that such documents were cited in a Japanese Patent Office Action on December 18, 2001.

This information disclosure statement is being submitted before the mailing date of a first office action on the merits.

To the extent that, the documents listed on the attached form equivalent to Form PTO-1449, are not in the English

language, the requirement of 37 CFR 1.98(a)(3) for a concise explanation of the relevance is satisfied by an English language abstract and/or the following remarks.

- (A) Japanese patent laid-open no. Hei 6-51333
 (1994-51333) (see the Abstract in English). In Figs. 1-4, a connection lead part 3, 13 is made of ITO, and formed in a radial and inclined state against an edge 5a, 15a of a glass substrate 5, 15. In Fig. 4 (prior art), a vertical part 13a of the connection lead part 13 exists. In Figs.1 and 3, a vertical part of the connection lead part 3 doesn't exist near the edge 5a. A wiring material 8, 18, for example A1, is laminated on the connection lead part 3, 13 since it makes a resistance of wiring as low as possible. This document does not disclose whether the connection lead part 3, 13 is parallel or not. This document does not disclose the position of a sealant.
- (B) Japanese patent laid-open no. Hei 2-181220 (1990-181120) (See the Abstract in English).
- (C) Japanese patent laid-open no. Hei 6-67191
 (1994-67191) (See the Abstract in English). Further, the document apparently discloses making resistances of wiring equal, and adjusting lengths and widths of linear wiring electrode parts 151, 152, ... 15n and 171, 172, ... 17m and oblique wiring electrode parts 161, 162, ... 16n and 181, 182, ... 18m.

- (D) Japanese utility laid-open no. Hei 4-55022 (1992-55022). In Figs. 1 to 3, a segment side electrode pattern I is formed on a segment side glass substrate. A common side electrode pattern II is formed on a common side glass substrate. A dummy electrode 2 is formed near a lead part A and B of the segment side electrode pattern II in an non-display area. Numeral 4 is a connecting pattern. An additional dummy pattern A, B and 2a is formed on common side glass substrate in substantially the same pattern condition of the electrode pattern A, B and dummy pattern 2a of the segment side glass substrate. The additional dummy electrode C, D and 2a is in an electrically open state (not connected to ground).
- (E) Japanese patent laid-open no. Hei 3-39720 (1991-39720) (See the Abstract in English).
- (F) Japanese utility laid-open no. Hei 4-87822 (1992-87822) (see the Abstract in English). This document discloses that a dummy electrode pattern 5 is formed between electrode pattern 3b.
- (G) Japanese utility laid-open no. Hei 6-15039
 (1994-15039) (see the Abstract in English). This document
 discloses that a dummy electrodes 5 are formed between each
 electrode terminals 4 at an area where the electrode terminals
 4 are connected to a circuit board by a heat seal.
- (H) Japanese utility laid-open no. Hei 6-33136 (1994-33136) (See the Abstract in English). This document

discloses that dummy electrodes are formed on a substrate with substantially the same pattern of lead parts of ITO electrodes formed on an opposed substrate. It / dummy electrodes are patterned so as not to be shortened.

- (I) Japanese patent laid-open no. Hei 6-51332 (1994-51332) (See the Abstract in English).
- (J) Japanese patent laid-open no. Hei 4-242719 (1992-242719) (See the Abstract in English).
- (K) Japanese patent laid-open no. Hei 6-118425 (1994-117425) (See the Abstract in English).

It is respectfully requested that this information disclosure statement be considered by the Examiner.

Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 01-2135 (501.33961R00) and please credit any excess fees to such deposit account.

Respectfully submitted,

Melvin Kraus

Registration No. 22,466

ANTONELLI, TERRY, STOUT & KRAUS, LLP

MK/cee Attachments (703) 312-6600